THE TREATMENT OF TUBERCULAR ABSCESS.[1]

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THE best method of treating tubercular abscess, especially abscess following in the course of hip-joint disease, is a subject of great importance and well merits a free and full discussion.

There are three plans commonly employed, each differing essentially in detail and theory, and each strongly advocated by men of experience and wide reputation.

In attempting to discuss a question about which such widely-diverging views are held, it is necessary that we give due prominence to and respect for the opinions of these men.

The first plan commonly employed is that of doing nothing at all surgically, but to sit calmly by and allow the abscess to do as it likes, and, after burrowing extensively under the tissues, to burst and discharge its contents at nature's own point of selection. Those who advocate this expectant plan of treatment claim that the place of spontaneous discharge is the most favorable point for drainage for that particular abscess, that the wound is smaller and the prospect of rapid closure better.

They contend that a tubercular abscess is really not an abscess in the true acceptation of the term, for the germs of suppuration are not present; that by opening the cavity with a knife we run the risk of carrying infective material into it, thus setting up a second and suppurative process with all its attendant dangers; and, further, that the probabilities of infection during the dressings are very great. We must admit also that tubercular abscess, if small, will occasionally become absorbed and disappear, or, at least, become quiescent. There is, however, the ever present danger of their contents becoming irritated and a lighting up of the old trouble resulting, not to speak of the possibility of general systemic tubercular infection.

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[1] Read before the Section on General Surgery of the College of Physicians of Philadelphia.

The second plan is that advocated by those who believe nothing should be done till the abscess is large and its walls thin. At this stage the cavity is to be aspirated, all of its contents, as far as possible, removed, the cavity washed out through the aspirator with some form of mild antiseptic fluid, and then injected with a solution of iodoform in oil or glycerin. This latter is used for the purpose of bringing the iodoform in contact with the whole inner surface of the abscess wall and in the hope of destroying the tubercle bacilli in the lining granulation tissue. As yet we have no agent which destroys these germs so well as iodoform.

We are often able to gain the consent of patients and of their parents to do this, when more active surgical interference will not be permitted. It must be borne in mind that this procedure is not without grave danger to the life of the patient, for we inject large quantities of iodoform into a closed cavity, and I have several times seen violent poisoning occur.

My own experience of this method of treatment has not been encouraging, as I cannot recollect a single case where its use was perfectly satisfactory. I admit, however, that others have been successful and strongly advocate this method. They contend that if the first injection is not successful it should be repeated once, twice, or three times if need be at various intervals of time, and that at each injection the size of the cavity is lessened and the amount of iodoform necessary to be used smaller.

I do not believe it possible, however, to remove through the small needle of an aspirator the cheesy masses and broken-down tissue which we always find present in these cases, and I have found it necessary in a short time to open such abscesses by a free incision and clean them out.

The third plan, and that which I have found to the best, is to treat the abscess on true surgical principles, just as we would a collection of pus in any other form, but, with the understanding that we are dealing with a condition where there are no germs of putrefaction.

This is by free incision, thorough curetting of the walls of the abscess cavity while the wound is being flushed with plain boiled sterile water, and then complete closure of the wound in the skin without drainage.

This plan I have found most useful in all forms of tubercular abscess.

The surface of the abscess is rendered aseptic for twelve or twenty-four hours before the time set for the operation by the following method: (1) The skin is washed well with green soap by means of a nail-brush; (2) ether is then used to remove all oil from the skin; (3) a solution of bichloride of mercury is then used of the strength of 1 to 2000, and a sterile dressing wet with the same solution is then applied and allowed to remain in contact with the skin until the patient is under the influence of the anæsthetic at the time of the operation.

An incision is then made into the abscess, which should be long enough to permit of the exploration of its cavity by the finger of the operator, the length of the incision, provided it be free, being of small moment. Next, the wall of the abscess cavity is to be thoroughly curetted with a Volkmann's spoon if the tissues are dense, and then, with what I find most efficient, a mass of sterile gauze held in a pair of forceps.

This gauze curette is not new, but is not used as often as it should be, for it can be used in cleaning out the cavity of a pelvic abscess as well as the more superficial ones and the danger of injuring the peritoneum is slight. Of course, in all curetting the amount of force to be used must depend upon the character of the tissues involved and of the proximity of important structures. In this way all of the granulation tissue containing the tubercle bacilli is scraped away and little or no violence is done to the sound structures, while a large mass of material is removed which can be gotten rid of in no other way.

Gauze used in this way to swab out the wound is efficient; it is safe, for unless very exceptional force is used it can do no harm to blood-vessels and other delicate structure, and where a metal curette would do much damage. During all the time the swab is being used a stream of plain boiled water is flowing into the wound and washing out the broken granulations and shreds of tissue. This stream of water constantly flowing I consider of the greatest importance, as it enables us to get rid of much tubercular matter that would otherwise escape our notice and remain in the wound.

After the cavity is thoroughly cleaned out and the return flow of the water is clear, the wound should be mopped dry with sterile gauze sponges and closed with silkworm-gut sutures.

No drainage whatever should be used, and in a great many cases we can get primary union of the wound. Halsted's subcuticular suture of silver wire or silkworm gut answers admirably, and prevents the possibility of infection from the skin.

At times there will be a small accumulation of wound discharge which will burst through the line of incision at some one point, but as soon as this fluid is liberated the healing process goes on without interruption.

The tendency in all tubercular wounds is to the formation of sinuses, and I consider the use of a drainage-tube in these cases objectionable as tending to their formation.

If, however, the abscess be very large, this is especially applicable to abscesses of the trunk and much less so to the hip, where it has been found impossible to reach every part of the cavity with the gauze curette, a drainage-tube may be used to get rid of the wound discharge for the first twenty-four hours, but under no circumstances where rapid union is expected should the tube be allowed to remain in position for a much longer period of time.

If primary union be not secured, this method of treatment enables us to thoroughly clean out the abscess cavity, to rid it of the broken-down tissue and the products of tubercular inflammatory processes and with the certainty of the removal of a large number of tubercle bacilli. If these bacilli are allowed to remain in the tissues, they may very readily become the source of a general systemic infection.

At the same time we lessen the size of the abscess cavity, diminish the amount of wound discharge, and enable healing to take place much more rapidly.

Certainly this is the most satisfactory method of treating these cases which I have yet undertaken, and gives most gratifying results in the vast majority of cases, while, at the same time, the comfort of the patient is much increased.